

PATENT
USSN: 10/027,458

Listing of the Claims:

1. (Previously presented) A cabinet for enclosing a controller, said controller being subject to arcing, which produces arc gasses, said cabinet comprising:

a plurality of walls for enclosing said controller;

a roof panel connected to said plurality of walls;

an exhaust vent for discharging built up gasses generated during an arc fault event;

a floor panel connected to said plurality of walls; and

a door for accessing said controller and maintaining integrity of said cabinet during said arc fault event.

a first member disposed parallel to one of said plurality of walls;

a second member connecting said first member to said one of said plurality of walls;

a hinge connecting said door to one of said first member, said second member, and said one of said plurality of walls;

a channel attached to said door and extending over said hinge, said channel adapted for receiving an edge of said first member, said edge opposite said second member; and

a resilient seal disposed between said edge and said channel as said channel is forced toward said edge of said first member due to arc gasses produced during arcing.

Claims 2-7 (Canceled)

8. (Previously presented) The cabinet of claim 1 further comprising a latching mechanism for releasably securing said door in a closed position, said latch mechanism

PATENT
USSN: 10/027,458

including a plurality of latch hooks and a strike assembly receiving said plurality of latch hooks such that said door remains sealed during said arcing.

9. (Original) The cabinet of claim 1 further comprising:

an opening bounded by a wall edge of one of said plurality of walls;

an access panel having a first surface and a first panel edge with a protruding member extending toward said wall edge; and

a resilient seal disposed between said first surface of said access panel and said wall edge.

10. (Previously presented) The cabinet of claim 1 further comprising:

an opening bounded by a first edge of one of said plurality of walls and by a second edge of another one of said plurality of walls;

an access panel having a first surface and a second surface, a first panel edge with a first protruding member extending toward said first edge, and a second panel edge with a second protruding member extending toward said second edge,

a first resilient seal disposed between said first surface of said access panel and said first edge; and

a second resilient seal disposed between said second surface of said access panel and said second edge.

11. (Previously presented) A cabinet for enclosing a controller, said controller being subject to arcing, which produces arc gasses, said cabinet comprising:

a plurality of walls for enclosing said controller;

a roof panel connected to said plurality of walls;

a floor panel connected to said plurality of walls;

PATENT
USSN: 10/027,458

an exhaust vent for discharging said arc gasses;
a flap covering said exhaust vent, said flap adapted to open and allow said arc gasses to escape;
a hinge connecting said flap to said cabinet;
a door for accessing said controller;
a latching mechanism for releasably securing said door in a closed position, said latch mechanism including a plurality of latch hooks and a strike assembly receiving said plurality of latch hooks such that said door remains sealed during said arcing;
a first member disposed parallel to one of said plurality of walls;
a second member connecting said first member to said one of said plurality of walls;
a hinge connecting said door to one of said first member, said second member, and said one of said plurality of walls;
a channel attached to said door and extending over said hinge, said channel adapted for receiving an edge of said first member; and
a resilient door seal disposed between said edge and said channel as said channel is forced toward said edge of said first member due to arc gasses produced during arcing.

12. (Previously presented) The cabinet of claim 11 further comprising:

an opening bounded by a first inwardly turned edge of one of said plurality of walls and by a second inwardly turned edge of another one of said plurality of walls;
an access panel having a first surface and a second surface, a first outwardly turned panel edge with a first protruding member extending toward said first inwardly turned edge, and a second outwardly turned panel edge with a second protruding member extending toward said second inwardly turned edge,

PATENT
USSN: 10/027,458

a first resilient seal disposed between said first surface of said access panel and said first inwardly turned edge; and

a second resilient seal disposed between said second surface of said access panel and said second inwardly turned edge.

13. (Original) The cabinet of claim 11 further comprising:

a first dimple in a first surface selected from one of said roof panel, said floor panel, one of said plurality of walls, and a structural member; and

a second dimple in a second surface selected from one of said roof panel, said floor panel, one of said plurality of walls, and said structural member, said second dimple adapted to mate with said first dimple.

14. (Original) The cabinet of claim 13 further comprising:

a first opening in said first surface being center aligned within said first dimple;

a second opening in said second surface being center aligned within said second dimple and in register with said first opening when said first dimple is mated with said second dimple; and

a fastener disposed in said first opening and said second opening, said fastener securely mating said first and second dimples such that said mated dimples provide an increased shear strength to said fastener.

15. (Original) The cabinet of claim 11 further comprising a baffle for isolating a first volume of said cabinet from a second volume of said cabinet, said baffle connected to at least two of said plurality of walls.

16. (Canceled)

PATENT
USSN: 10/027,458

17. (Previously presented) A cabinet for enclosing a controller, said controller being subject to arcing, which produces arc gasses, said cabinet comprising:

a plurality of walls for enclosing said controller;

a door for accessing said controller, said door including a latching mechanism for releasably securing said door in a closed position, said latch mechanism including a plurality of latch hooks and a strike assembly receiving said plurality of latch hooks such that said door remains sealed during said arcing;

a first member disposed parallel to one of said plurality of walls;

a second member connecting said first member to said one of said plurality of walls;

a hinge connecting said door to one of said first member, said second member, and said one of said plurality of walls;

a channel attached to said door and extending over said hinge, said channel adapted for receiving an edge of said first member; and

a resilient door seal disposed in said channel for sealing a gap between said edge and said channel as said channel is forced toward said edge of said first member due to arc gasses produced during arcing.

Claims 18 and 19 (Canceled)

20. (Previously presented) The cabinet of claim 17, further comprising:

a baffle for isolating a first volume of said cabinet from a second volume of said cabinet, said baffle connected to at least two of said plurality of walls, said first volume containing said arc gasses;

at least one dimple in at least two of said plurality of walls; and

PATENT
USSN: 10/027,458

at least two dimples in said baffle, said baffle dimples adapted to mate with said wall dimples thereby providing a high shear strength attachment between said plurality of walls and said baffle.

Claims 21-27 (Canceled)

28. (Previously presented) The cabinet of claim 20 further comprising

an aperture centrally defined in each of said wall dimples and in each of said baffle dimples such that said apertures in said wall dimples are in register with said apertures in said baffle dimples when said wall dimples are mated with said baffle dimples; and

a fastener disposed in said registered apertures of said wall dimples and said baffle dimples, said mated dimples providing increased shear strength to said fastener securing said walls to said baffle.

29. (Canceled)

30. (Previously presented) The cabinet of claim 17 further comprising:

an opening bounded by a first inwardly turned edge of one of said plurality of walls and by a second inwardly turned edge of another one of said plurality of walls;

an access panel having a first surface and a second surface, a first outwardly turned panel edge with a first protruding member extending toward said first inwardly turned edge, and a second outwardly turned panel edge with a second protruding member extending toward said second inwardly turned edge,

a first resilient seal disposed between said first surface of said access panel and said first inwardly turned edge; and

a second resilient seal disposed between said second surface of said access panel and said second inwardly turned edge.

PATENT
USSN: 10/027,458

31. (Currently amended) An arc resistant cabinet for enclosing electrical equipment subject to arcing faults that produce arc gasses, said cabinet comprising:

a plurality of walls for enclosing said electrical equipment;

a roof panel connected to said plurality of walls;

a floor panel connected to said plurality of walls;

an opening bounded by a first inwardly turned edge of one of said plurality of walls and by a second inwardly turned edge of another one of said plurality of walls;

an access panel having a first surface and a second surface, a first outwardly turned panel edge with a first protruding member extending toward said first inwardly turned edge, and a second outwardly turned panel edge with a second protruding member extending toward said second inwardly turned edge,

a first resilient seal disposed between said first surface of said access panel and said first inwardly turned edge; and

a second resilient seal disposed between said second surface of said access panel and said second inwardly turned edge;

wherein said first and second resilient seals provide a seal between said first and second surfaces and said first and second inwardly turned edges, respectively, as said access panel is forced outwardly due to arc gases produced during an arc fault.

32. (Previously presented) The cabinet of claim 17, further comprising:

a plurality of structural members

a roof panel connected to said plurality of walls;

a floor panel connected to said plurality of walls;

a plurality of dimples, at least one dimple being defined in each of said plurality of structural members, said plurality of walls, said roof panel and said floor panel, each of

PATENT
USSN: 10/027,458

said plurality of dimples defining a central aperture and being configured for mating with another of said plurality of dimples such that said central apertures of mated dimples are generally aligned; and

a plurality of fastening devices, one being received in said generally aligned central apertures of mated dimples, said mated dimples providing increased shear strength between said plurality of structural members, said plurality of walls, said roof panel and said floor panel of said cabinet.